



*"A Public/Private Partnership for a Healthier America"*

**National Health IT  
Collaborative For the  
Underserved**

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Association of Clinicians for the  
Underserved

eHealth Initiative  
and  
eHealth Initiative Foundation

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December 4, 2009

Federal Communications Commission  
445 12<sup>th</sup> St., SW  
Washington, DC 20554

Re: Comments – NBP Public Notice #17; GN Docket Nos. 09-47, 09-51, and 09-137; and WC Docket No. 02-60

Ladies and Gentlemen:

We, the National Health IT Collaborative for the Underserved (NHIT), a public/private/community partnership, has as its primary goal the leveraging of HIT advances to reduce and ultimately eliminate health disparities experienced by medically underserved areas and populations, particularly communities of color. Low-income Americans and people of color continue to experience disproportionately higher rates of disease, fewer treatment options and less access to health care.

If our nation is going to remedy these disparities and realize the benefits of interoperable health IT, health care facilities are going to require not only high-speed but also extremely reliable connections. As more and more health information moves to an electronic format, connectivity is becoming vital. As health care continues to evolve at an unprecedented pace, it would be difficult to overestimate bandwidth needs. However, it is clear that health care organizations will need more bandwidth than a typical business of similar size; furthermore, due to the nature of the business, that bandwidth must always be available. Connections to hospitals and other emergency providers must approach "five nines" availability with an average uptime of 99.999%. We believe that the "five nines" availability far exceeds the typical service level that Internet Service Providers provide and can require multiple, redundant connections. These connections must remain available in all weather, even in cases of natural or man-made disasters.

Often, underserved populations and communities of color suffer the most when high quality and affordable technology or healthcare services are not accessible. Recent events have shown that emergency and public health providers need more bandwidth, not less, in cases of disasters, particularly in pandemic or bio/chemical terrorist events as the need to share information during these times are vital to public health. Maximizing the access to broadband for these communities and those who care for them will enhance the lives of all Americans and ensure that no community is left behind.

Telecommunications technology such as broadband offers a tremendous opportunity to make America healthier and allow Americans to live longer, while at the same time saving our nation what some have estimated to be as much as \$165 billion a year, enough to insure 47 million individuals, more than three-quarters of all uninsured Americans.<sup>1</sup> Two of the most promising telecommunications applications that are already improving health care while at the same time reducing costs are "telehealth" and digital health information technology. Widespread adoption of these technologies will significantly stimulate both the build-out, and demand, for universal, affordable, and robust broadband and next generation wideband infrastructure.

### Telehealth

"Telehealth" - using telecommunications technology such as broadband in the provision of health care - would revolutionize medical treatment. Telehealth technologies can "remotely monitor patients, facilitate collaboration between medical professionals, exchange medical data and images, and instantaneously enable the provision of more efficient emergency service to medically underserved and remote areas." Access to medical care can be provided, even while using America's comparatively slow broadband networks, and quality of care measurement must follow. Examples include:

- Remote in-home monitoring of patients by health care professionals;
- Routine visits to overworked healthcare professionals are reduced while quality of care and quality of life are maintained or improved;
- Improved access to medical specialists in underserved urban and remote rural areas;
- Reduced travel to and among medical offices, clinics, and hospitals;
- Widespread, low-cost dissemination of health information to patients and consumers;
- Easier access to medical second opinions; and
- Improved "triage" of patients for emergency transport.

For example, highlighting dietary concerns as just one example, through the use of telehealth applications, patients and their caregivers could:

- Access educational information and applications to attack the environmental root causes and promote early intervention through online nutritional planning, healthy menus, calorie counters, and other proactive healthy-living tools at any time of the day or night;
- Video conference with health professionals and support service providers such as online dieticians, and have recurring physical checkups conducted remotely, thereby avoiding inconvenient and costly trips to clinics or doctors' offices for evaluation and treatment of their chronic condition;
- Participate in online exercise regimens individually tailored to their particular cases at times when they are not in school or at work;

- Shop at a "virtual" online grocery store that keeps track of calories and nutritional needs, then creates a healthy shopping list and prints it out for the patient to take to the real store; and
- Meet with mental health professionals and/or persons with similar conditions (e.g., other obese youths) in online counseling, support, and therapy sessions.

As technology improves and bandwidth increases, telehealth applications will deliver even more revolutionary advances in treatment, while substantially reducing costs. Today, in Japan, much of the nation is wired with superior high-speed fiber technology providing symmetric 100 Mbps bandwidth that is 8 to 30 times faster than most broadband connections in the United States. Such robust broadband enables pathologists at a large, urban hospital to treat patients in both close and distant urban and rural areas using high-definition video and remote-controlled microscopes that give sufficient richness of detail to enable a doctor to "make a definitive remote diagnosis of cancer." It also enables pathologists to see patients much more efficiently in a nation with a severe shortage of pathologists.<sup>2</sup> Today, the radiology community has already adopted the use of remote "reading centers" comprised of groups of radiologists who interpret radiographic films sent from around the country. Robust bandwidth is thus particularly important for imaging and video applications, as the electronic files associated with this type of use can be extremely large.

Jim Baller and Casey Lide illustrate how the potential of telehealth in America is constrained by our nation's comparatively slow broadband:

Under the FCC's former definition of "broadband" (200 Kbps), it would take nearly a full day to download a 10 minute diagnostic video clip. At current DSL speeds, it would take almost three hours. Moreover, because DSL and CMS are typically asymmetric - i.e., upload speeds are much slower than download speeds - it would take much longer than three hours for the patient or his local doctor or health care facility with only DSL or CMS to upload the images to forward them to the reviewing health care facility. With a symmetric 100 Mbps broadband connection, it would only take three minutes to transmit the video clip.<sup>3</sup>

Unfortunately, most of America does not have access to broadband connections that are fast enough to enable these or other bandwidth-intensive telehealth applications already in widespread use in other countries with superior broadband.

Full implementation of broadband in healthcare will:

- Empower patients to better monitor their own care and lifestyle habits, and to interact with health providers;
- Improve the management - and thus lower the cost—of chronic illnesses, since early and consistent treatment delays the onset of many symptoms;
- Enable people who live in underserved communities to gain access to treatment that they otherwise might not receive, given the lack of adequate numbers of health professionals and facilities in inner cities and rural areas;
- Engage children of aging parents (who may have to travel long distances to help care for their elders) to remotely participate in decision making and monitoring, using real-time video, voice, images, and data exchanged and conference among patients, care providers, and families; and

- Introduce security and privacy protocols not possible under the current paper-based system.
  - With paper-based systems, anyone who can open a filing cabinet can view sensitive patient information (and even copy and distribute it), then return the papers without detection.
  - HIT establishes a firewall around patient data, requiring passwords and permission to gain access, and leaving an audit trail of who accessed the data, when, and why.

The rapid development of telehealth technology creates an increased demand for a trained workforce capable of adapting to the latest health information technology in concert with expanded demand for access to health care services. Accelerated development and deployment of health IT resources, education, and training programs for all categories of health care providers are needed to meet these demands. Expanding telecommunication infrastructure and broadband width, vital to successful implementation of telehealth, can contribute immeasurably to the creation of an expanded workforce, advancing significantly the nation’s goal of expanding employment opportunities, particularly among the underserved, with an emphasis on communities of color where unemployment rates greatly exceed the national average. Federal, State and local policymakers, consumers, and key stakeholders must address this issue at all levels of society.”

The maximum benefits of broadband Internet will not be realized until every American has the access, equipment, and skills necessary to connect to and navigate the Internet. In order to provide for these needs the FCC's national broadband plan should call for new programs. For instance, programs that encourage broadband providers to continue investing and building out their networks in rural areas would enable previously unserved users to connect. Cost is a major barrier to broadband access for many constituents. Programs subsidizing equipment and connection expenses will enable those of modest means to access broadband Internet. Finally, programs designed to educate prospective broadband Internet users should be implemented so they can more quickly realize the benefits. Each of these programs should be tailored to meet the needs of various groups of people—including the disabled—by incorporating messages about access in widely distributed communications as well as creating communications targeted directly at the disability community, those who provide support services, and healthcare professionals.

Above all, the FCC should advocate a path for continued private investment which takes federal activity into account. The federal government must strategically align efforts by the Office for Advancement of Telehealth within HRSA, USDA’s Rural Development's Distance Learning and Telemedicine Program, and those of other federal agencies and entities. Coordination and control of federal activities is important. Supplemental funding and oversight are vital.

Sincerely,



Ruth T. Perot  
Managing Director

<sup>1</sup> Upgrade America's Health Care System: Pass Health IT Legislation Now," Business Roundtable, April 2, 2008, [www.businessroundtable.org/publications/publication.aspx?q=2AD6BF807822](http://www.businessroundtable.org/publications/publication.aspx?q=2AD6BF807822)

<sup>2</sup> Blaine Harden, "Japan's Warp-Speed Ride to Internet Future," Washington Post, August 29, 2007, A1,

<sup>3</sup> Baller and Lide, 22